

HEARING CONSERVATION PROGRAM

A. Introduction

1. Per OSHA 29CFR1910.95 Occupational Noise Exposure standard, protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in the table below:

TABLE G-16 - PERMISSIBLE NOISE EXPOSURES (1)

Duration per day, hours	Sound level dBA slow response
8.....	90
6.....	92
4.....	95
3.....	97
2.....	100
1 1/2	102
1.....	105
1/2	110
1/4 or less.....	115

Footnote(1) When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions: $C(1)/T(1) + C(2)/T(2) + \dots + C(n)/T(n)$ exceeds unity, then, the mixed exposure should be considered to exceed the limit value. Cn indicates the total time of exposure at a specified noise level, and Tn indicates the total time of exposure permitted at that level. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

Reference: www.osha.gov

2. UNE will administer a continuing, effective hearing conservation program “whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent. For purposes of the hearing conservation program, employee noise exposures shall be computed in accordance with appendix A and Table G-16a, and without regard to any attenuation provided by the use of personal protective equipment.”

3. The Action Level is an 8-hour TWA of 85 decibels or a dose of fifty percent, when information indicates that the employee’s exposure level is equal or exceeding an 8-hour TWA of 85 decibels, UNE has developed and implemented a hearing conservation program in accordance with OSHA 29CFR1910.95.

B. Responsibilities

1. UNE Environmental Health and Safety Department (EHS):
 - a. Determine areas where noise exceeds 85 decibels in an 8-hour TWA by measuring sound levels and testing areas where employees feel there is excessive noise. (*See Appendix V*)

- b. UNE will provide employee's the opportunity to get regular Audiometric Testing conducted at no charge to the employee by a licensed professional through an Audiometric Testing Program setup by EHS in conjunction with Human Resources, Industrial Hearing, and Concentra.
- c. Provide training for employee's exposed to an 8-hour TWA of 85 decibels or more.
- d. Provide several types of hearing protection to employees at no cost to the employee.
- e. Make the Hearing Conservation Program accessible to all employees.
- f. All recordkeeping for the Hearing Conservation Program will be done by EHS and Human Resources.

2. Employee

- a. Report any noisy or loud operations that the employee feels may be above the 8-hour TWA of 85 decibels.
- b. Attend Audiometric testing if required.
- c. Attend annual training sessions on the hearing conservation program.
- d. Where hearing protection when required/mandated by OSHA and/or the UNE EHS department.
- e. Request new hearing protection if employee's hearing protection is lost, damaged, or out of stock.

C. Scope:

The Hearing Conservation Program is designed to protect the hearing of all employees and students on the UNE campus by ensuring that if any person is exposed to an 8-hour TWA of 85 decibels or more, regular audiograms and hearing protection are provided.

D. Monitoring:

When it is indicated that any employee's exposure level is equal to or exceeds an 8-hour TWA of 85 decibels, EHS will require the employee to participate in a monitoring program.

1. The monitoring program is designed to identify employees that need to be included in the program and enable EHS to provide the proper hearing protection.
2. When workers are highly mobile, or there are significant variations in sound levels, or conditions that may be difficult to perform area testing, than the use of representative personal sampling will be used.
3. Instruments used for monitoring will be calibrated to ensure accuracy.

4. Monitoring will take place whenever there is a change in a process, equipment, or the work area is changed in a way that it may impact additional employees.

5. The EHS department will notify all exposed employees if they are at or above the 8-hour TWA of 85 decibels.

6. Exposed employees have the right to observe all monitoring.

E. Audiometric Testing:

The EHS department will establish and maintain an audiometric testing program available to employees at or above the 8-hour TWA of 85 decibels at no cost to the employee.

1. Audiometric testing must be performed by a licensed or certified audiologist, otolaryngologist, or other qualified physician.

2. Baseline Audiogram: Within 6 months of the employee's first exposure at or above the action level, the EHS department will establish a valid baseline audiogram against which subsequent audiograms can be compared. (Within one year if using a mobile test van for testing).

a. The baseline exam should be preceded by 14 hours without workplace noise exposure. (Hearing protection may be used for the 14 hour window if the employee will be exposed to workplace noise).

b. The employee will be notified to avoid high levels of noise outside of the workplace 14 hours before the audiogram.

c. After the baseline audiogram, the audiogram should be performed annually for employees exposed to 85 decibels at the 8-hour TWA.

3. Evaluation of Audiogram:

a. The annual audiogram will be compared to the baseline audiogram by a technician to see if the employee has suffered a threshold shift.

b. If the annual audiogram shows a standard threshold shift, the employee will be retested within 30 days and consider the results of the re-test the annual audiogram.

c. The technician will review problem audiograms and determine whether there is a need for further testing.

4. UNE will provide the following information to the technician performing the audiogram:

a. A copy of the requirements set forth by the OSHA 29CFR1910.95 Hearing Conservation Standards.

b. A copy of the baseline audiogram and most recent audiogram of the employee being evaluated.

The technician will provide:

c. Measurements of background sound pressure levels in the audiometric test room.

d. Records of audiometer calibrations.

5. Standard Threshold Shift:

A standard threshold shift is defined as: “a change in hearing threshold relative to the baseline audiogram of an average of 10dB or more at 2000, 3000, and 4000 Hz.” If the comparison of the baseline audiogram to the annual audiogram indicates a standard threshold shift has occurred, the employee will be notified in writing within 21 days of the determination unless a physician determines the standard threshold shift is not work related or caused by occupational exposure.

The following steps will be taken if a threshold shift occurs:

a. Employees not using hearing protection will be fitted with hearing protection, trained in its use and care, and be required to use hearing protection.

b. Employees already using hearing protection will be refitted, retrained, and provided with a greater level of hearing protection if necessary.

c. Additional testing may be required if a Standard Threshold Shift occurs, at the discretion of the technician performing the tests and the EHS department.

6. Revised Baseline:

An annual audiogram may be substituted for a baseline audiogram at the discretion of the audiologist evaluating the audiogram if:

a. The standard threshold shift revealed by the audiogram is persistent or

b. The hearing threshold shown in the annual audiogram indicates improvement over the baseline audiogram.

7. Audiometric Testing Requirements and Procedures:

a. Audiometric tests shall be pure tone, air conduction, hearing threshold examinations, with test frequencies including as a minimum 500, 1000, 2000, 3000, 400, and 6000 Hz. Tests for each frequency will be taken separately for each ear.

b. Audiometric tests will be conducted with audiometers meeting the American National Standard Specification for Audiometers, S3.6-1969.

c. Audiometric exams will be given in a room meeting the OSHA requirements listed in Appendix D of the OSHA Hearing Conservation Standard.

d. The Audiometer must be properly calibrated each day before use to ensure there are no distortions or unwanted sounds. (Deviations of 10 decibels or greater require acoustic calibration). Audiometers should be calibrated annually.

F. Hearing Protection

1. UNE will provide hearing protection at no cost to the employee to all employees who:
 - a. Have been exposed to an 8-hour TWA of 85 decibels or greater
 - b. Has not had a baseline audiogram established
 - c. Have experienced a threshold shift
 - d. Hearing protection will be replaced by UNE as necessary.
2. The employee's Supervisor or Manager will ensure that hearing protection is being worn and policies are being enforced.
3. Employees are given the opportunity to select their hearing protection from a variety offered by the EHS department.
4. EHS will provide training to all employees on the handling and care of all hearing protection devices supplied to the employee.
5. EHS will ensure proper fitting and supervise correct use of hearing protection.
6. EHS is responsible for making sure that the hearing protection selected is the correct attenuation for the specific environment it will be used in.

G. Training Program

1. It is UNE's responsibility to provide a Hearing Conservation Training program to all employees exposed to an 8 hour TWA of 85 decibels or more and make sure that all employees attend the training program, which may be given by the hearing testing vendor at the time of the audiogram.
2. Once an employee is part of the Hearing Conservation program, they are to attend an annual training presentation for Hearing Conservation. Any information that has changed will be updated and included in the annual training.
3. The following topics will be covered in the Hearing Conservation training:
 - a. The effects of noise on hearing.
 - b. The purpose of using hearing protection, its advantages and disadvantages, proper selection of hearing protection, and proper fitting and caring of hearing protection.
 - c. The purpose of audiometric testing, the process of the testing, and what the results mean.
4. All training materials are available to the employee's at any time upon request through EHS.

H. Recordkeeping

UNE will keep the following records on file in the Human Resources Department or EHS:

1. Exposure measurements: An accurate record of all employee exposure measurements.
2. Audiometric testing results and records which include:
 - a. The name of the employee and their job title
 - b. The date of the audiogram
 - c. The examiner's name
 - d. The date of the last calibration of the audiometer
 - e. The employee's most recent noise exposure assessment.
 - f. The measurements of the background sound pressure levels in audiometric testing rooms.
3. The noise exposure measurement records shall be obtained for 2 years.
4. The audiometric test records will be retained for the duration of the employee's employment and are available through the Human Resources Department.
5. Records are available to employees upon request.